BUREAU OF AUTOMOTIVE REPAIR

LOW-PRESSURE FUEL EVAPORATIVE SYSTEM TESTING

EFFECTIVE AUGUST 1, 2007

California Code of Regulations, Title 16, Division 33, Chapter 1, Article 5.5:

§ 3340.16. Test-Only Station Requirements.

(a) A smog check test-only station operating in other than an enhanced program area shall have all testing equipment and emission application and reference manuals necessary to test and/or inspect all affected vehicles, including the following:

(1) An emissions inspection system, in accordance with the bureau's BAR-97 Emissions Inspection System Specifications as provided in subsection (a) of section 3340.17 of this article.

(2) An ignition timing light, which measures ignition advance.

(3) A hand vacuum pump and a vacuum gauge.

(4) Basic hand tools necessary to inspect vehicle ignition, fuel delivery, and emission control systems.

(5) A device capable of retrieving trouble codes from vehicles with on-board computers, along with instructions on how to extract codes, and definitions of codes found.

(6) A fuel fillpipe restrictor dowel gauge meeting the following specifications:

(A) Made of a non-sparking material meeting the standard for hardness of aluminum alloy No. 5052 as defined in Volume 02.02 of section 2 of the 1986 Annual Book of Standards published by the American Society for Testing and Materials;

(B) Having a radiused test portion;

(C) Having a test portion diameter not less than 0.9375 inches or more than 0.950 inches;

(D) Having an overall length not less than 5 inches or more than 12 inches;

(E) Having a handle no less than 1.25 inches in diameter, and no less than 4 inches in length; and

(F) Constructed of solid bar stock or tubing with a minimum wall thickness of 3/16 of an inch.

(7) The most currently available emission control system application information as contained in any of the nationally distributed and periodically updated manuals that address emission control systems applications; vacuum routing diagrams for all vehicles being tested; electronic component location manuals; and specifications for those functional tests currently prescribed by the bureau.

(8) The most currently available bureau manuals and bulletins.

(9) An evaporative emission control inspection system that meets subsections (a) through (h) and (j) of section 2.8 of the emissions inspection system specifications referenced in subsection (b) of section 3340.17 of this Article.

(10) On and after November 1, 2007, low-pressure fuel evaporative test equipment that has been certified by the bureau as compliant with the *Low-Pressure Fuel Evaporative Tester* (LPFET) *Specifications* dated October 2006 and hereby incorporated by reference. The test equipment shall be maintained and calibrated in accordance with the LPFET Specifications referenced in this paragraph and in accordance with the manufacturer's specifications. Vehicle

data low-pressure fuel evaporation test results shall be transmitted to a database specified by the department in accordance with the procedures contained in the LPFET Specifications referenced in this paragraph, which include the form, manner and frequency of data transmittals.

(b) A smog check test-only station operating in an enhanced program area shall have all of the equipment and materials specified by and conform to the requirements of subsection (a) above, except for paragraphs (1) and (5), and an emissions inspection system in accordance with the bureau's BAR-97 Emissions Inspection System Specifications as provided in subsection (b) of section 3340.17 of this article. A smog check test-only station operating in an enhanced area shall have a tire pressure gauge capable of accurately measuring tire pressure at the specification for the vehicles being tested and inspected using the loaded-mode test procedure.

(c) A smog check test-only station shall post conspicuously, in an area frequented by consumers, a notice to the effect that the station is licensed to test vehicles only, and cannot make any required diagnosis or repairs to a vehicle which has failed a smog check test.

(d) A smog check test-only station shall not engage in any automotive repair work.

(e) No smog check test-only station may refer a vehicle owner to a particular automotive repair dealer or provider of smog check repair services. The test-only station shall make available to each customer a list prepared by the bureau of all smog check stations in that region licensed to make repairs of vehicular emission control systems, which shall include licensed stations certified under the Gold Shield program. Stations and technicians are prohibited from altering or revising the list supplied by the bureau. For the purpose of this subsection, the term "make available" means to grant access to.

(f) A smog check test-only station shall not have ownership in, corporate interest in, nor any financial interest in a smog check test-and-repair station within a geographical radius of 50 statute miles of the test-only station.

Note: Authority cited: Sections 44001.5, 44002, 44013 and 44036, Health and Safety Code and Section 9882 of the Business and Professions Code. Reference: Sections 44010, 44012, 44013, 44014, 44014.5, 44015, 44017.1, 44033, 44036 and 44037.1, Health and Safety Code and Sections 9884.8 and 9884.9 of the Business and Professions Code.

§ 3340.42 Mandatory Emissions Inspection Standards and Test Procedures.

Smog check stations and smog check technicians shall conduct tests and inspections in accordance with the bureau's BAR-97 Emissions Inspection System Specifications referenced in subsections (a) and (b) of Section 3340.17 and the following:

(a) There shall be two test procedures as follows:

(1) The loaded-mode test method shall be the primary test method used in the enhanced program areas of the state. The loaded-mode test method shall measure hydrocarbon, carbon monoxide, carbon dioxide and oxides of nitrogen emissions. The loaded-mode test equipment shall be Acceleration Simulation Mode (ASM) test equipment, including a chassis dynamometer, certified by the bureau. The loaded-mode test procedures, including the preconditioning procedure, shall only be conducted according to the bureau-approved procedures specified in this section and include the following:

(A) Place the vehicle's driving wheels on a chassis dynamometer and properly restrain the vehicle prior to commencing the test.

(B) Exhaust emissions shall be tested and compared to the emission standards set forth in this section and as shown in Table I or Table II, as applicable.

(C) With the vehicle operating, sample the exhaust system in the following sequence:

1. Accelerate the vehicle to the cruise condition as specified by the test procedures.

2. Operate the vehicle long enough to stabilize emission levels.

3. Measure and record emissions (hydrocarbon, carbon monoxide, carbon dioxide, and oxides of nitrogen).

(2) The two-speed idle mode test method shall be used in all program areas of the state, other than the enhanced program areas. The two-speed idle mode test method shall measure hydrocarbon, carbon monoxide and carbon dioxide emissions at high RPM and again at idle RPM, as contained in the bureau's specifications referenced in subsection (b) of Section 3340.17 of this article. Exhaust emissions from a vehicle subject to inspection shall be tested and compared to the emission standards set forth in this section and as shown in Table III.

(3) All tests shall be performed with the engine at its normal operating temperature.

(4) All loaded mode testing shall be conducted in a manner that does not induce excess emissions to the test.

(b) There shall be a liquid fuel leak inspection as follows:

(1) As used in this section, "liquid fuel leak" means any fuel emanating from a vehicle's fuel delivery, metering, or evaporation systems in liquid form that has created a visible drop or more of fuel on a component of a vehicle's fuel delivery, metering, or evaporation system or has created a fuel puddle on, around, or under a component of a vehicle's fuel delivery, metering, or evaporation system.

(2) With the engine running, the smog check technician shall visually inspect the following components of the vehicle, if they are exposed and visually accessible, for liquid fuel leaks:

(A) Gasoline fuel tanks.

(B) Gasoline fill pipes, associated hoses and fuel tank connections.

(C) Gas caps.

(D) External fuel pumps.

(E) Fuel delivery and return lines and hoses.

(F) Fuel filters.

(G) Carburetors.

(H) Fuel injectors.

(I) Fuel pressure regulators.

(J) Charcoal canisters.

(K) Fuel vapor hoses.

(L) Any valves connected to any other fuel evaporative component.

(3) If a smog check technician detects a liquid fuel leak, the technician shall enter "F" (Defective) in the "Fuel Evaporative Controls" category of the visual inspection when prompted by the emissions inspection system (EIS) and the vehicle shall fail the inspection.

(4) Smog check technicians shall indicate on the vehicle inspection report the location of any liquid fuel leak.

(5) The liquid fuel leak inspection required by this section is a visual inspection only. Smog check technicians are not required to perform any disassembly of the vehicle to inspect for liquid fuel leaks. No special tools or equipment, other than a flashlight and mirror, are required and no raising, hoisting or lifting of the vehicle is required.

(6) Expenditures for repairs made at a licensed smog check station to correct liquid fuel leaks detected during a smog check inspection shall be credited toward the repair cost waiver expenditure specified in section 44017 of the Health and Safety Code, or applied to the repair

assistance program co-payment specified in section 44062.1 of the Health and Safety Code and Section 3394.4 of this chapter.

(7) Nothing in this subsection shall prohibit a technician from refusing to inspect a vehicle or from aborting an inspection if a liquid fuel leak presents a safety hazard.

(8) This subsection shall not apply to vehicles fueled exclusively by compressed natural gas (CNG), liquid natural gas (LNG), or liquid petroleum gas (LPG).

(c) On and after November 1, 2007, all motor vehicles subject to the program, except as provided in paragraph (1) of this subsection, shall be given a low-pressure test of the fuel evaporative control system as part of a smog check inspection.

(1) The following vehicles are exempt from the low-pressure fuel evaporative test, and when inspecting these vehicles, the Smog Check technician shall enter "N" (Not Applicable) at the EIS "Fuel Evaporative Test" prompt:

(A) 1996 and newer model-year vehicles that are equipped with a Series II On-Board Diagnostic (OBD II) system with the capability to perform a self-diagnosis of the vehicle's fuel evaporative system;

(B) Vehicles for which there are no fuel tank filler neck adapters;

(C) Vehicles powered exclusively by compressed natural gas (CNG), liquid natural gas (LNG) or liquid petroleum gas (LPG);

(D) Vehicles not originally equipped, and not required by state or federal law to be equipped, with a fuel evaporation control system;

(E) Vehicles with two or more fully operational fuel tanks; and

(F) Vehicles, in their original factory configuration, with a fuel evaporative canister and fuel vapor hoses that are not accessible or would require the partial dismantling of the vehicle in order to gain access to them for testing. If the fuel evaporative system pressure test is infeasible pursuant to this subparagraph, the technician shall note the location of the canister on the vehicle inspection report provided to the consumer pursuant to Section 3340.41 of this article.

(2) Smog Check stations and Smog Check technicians shall perform the low-pressure test of a vehicle's fuel evaporative systems, using a BAR-certified low-pressure fuel evaporative tester (LPFET). The test shall be performed in accordance with the test procedures and specifications contained in the LPFET instruction manual provided by the tester's manufacturer, and the following, as applicable:

(A) If components related to the vehicle's fuel evaporation system are missing, modified, or disconnected, enter "F" at the EIS "Fuel Evaporative Test" prompt. If the vehicle's fuel evaporation system components are not missing, modified or disconnected, proceed with the test.

(B) If, at the conclusion of the test, the LPFET displays a "P" (pass), enter "P" in the EIS at the "Fuel Evaporative Test" prompt.

(C) If, at the conclusion of the test the LPFET displays an "F" (fail), perform a seal check in accordance with the procedures and specifications contained in the LPFET instruction manual provided by the tester's manufacturer.

1. If, after completion of the appropriate seal check, the system is found to be properly sealed, enter "F" (fail) in the EIS at the "Fuel Evaporative Test" prompt.

2. If, after completion of the appropriate seal check, the system is found not to be properly sealed follow the applicable procedures and specifications contained in the LPFET instruction manual provided by the tester's manufacturer to correct the leaks and effect proper seals.

(D) After all leaks have been corrected, a verification test shall be performed in accordance with the procedures and specifications contained in the LPFET instruction manual provided by

the tester's manufacturer.

1. If, at the conclusion of the verification test, the LPFET displays a "P" (pass), enter "P" in the EIS at the "Fuel Evaporative Test" prompt.

2. If, at the conclusion of the verification test the LPFET displays an "F" (fail), enter "F" in the EIS at the "Fuel Evaporative Test" prompt.

(E) At the completion of the test and any necessary verification test, following the procedures and specifications contained in the LPFET instruction manual provided by the tester's manufacturer, depressurize the evaporative system, remove the tester and return the fuel evaporative system to its original configuration.

(3) Nothing in this subsection shall excuse a station or a technician from completing the visual inspection of the vehicle as required by Section 3340.17 or the liquid fuel leak inspection as required by subsection (b) of this section.

(d) Pursuant to section 39032.5 of the Health and Safety Code, gross polluter standards are as follows:

(1) A gross polluter means a vehicle with excess hydrocarbon, carbon monoxide, or oxides of nitrogen emissions pursuant to the gross polluter emissions standards included in TABLES I, II or III.

(2) Vehicles with emission levels exceeding the emission standards for gross polluters during an initial inspection will be considered gross polluters and the provisions pertaining to gross polluting vehicles will apply, including, but not limited to, sections 44014.5, 44015, 44017 and 44081 of the Health and Safety Code.

(3) A gross polluting vehicle shall not be passed or issued a certificate of compliance until the vehicle's emissions are reduced to or below the applicable emissions standards for the vehicle as indicated in TABLES I, II, or III. However, the provisions described in section 44017 of the Health and Safety Code may apply.

(4) This subsection applies in all program areas statewide to vehicles requiring inspection pursuant to sections 44005 and 44011 of the Health and Safety Code.

(5) The gross polluter emission standards in TABLE III shall be used to determine if a vehicle shall be designated as a gross polluter.

(e)(1) In the enhanced program areas, heavy-duty vehicles shall be tested using the loaded-mode testing method as provided in paragraph (1) of subsection (a) of this section, unless:

(A) The vehicle has a drive axle weight that exceeds 5,000 pounds when the vehicle is unloaded, or

(B) The vehicle is classified by the Department of Motor Vehicles as a motorhome, or

(C) The vehicle has a body and/or chassis configuration or modification made for business purposes that renders the vehicle incompatible with loaded-mode testing, or

(D) The emission inspection system prompts the technician to perform the two-speed idle test.

(2) For the purposes of this subsection, the term "unloaded" shall mean that the vehicle is not currently transporting loads for delivery or is not carrying items of a temporary nature, but excludes items that have been welded, bolted or otherwise permanently affixed to the vehicle, and tools, supplies, parts, hardware, equipment or devices of a similar nature that are routinely carried in or on the vehicle in the performance of the work for which the vehicle is primarily used.

(3) For the purposes of this subsection, modifications that render a vehicle incompatible with loaded-mode testing shall not include any tire, wheel, body or chassis modifications made for

other than business purposes.

(4) If it is determined that a heavy-duty vehicle cannot be subjected to a loaded-mode test for any of the reasons set forth in subparagraphs (A) through (D) of paragraph (1) of this subsection, the technician shall perform a two-speed idle test. The technician shall also note on the final invoice the justification for the performance of a two-speed idle test.

[TABLES I, II, and III omitted.]

NOTE: Authority cited: Sections 44001.5, 44002, 44003, 44012, 44013 and 44036, Health and Safety Code and Section 9882 of the Business and Professions Code. Reference: Sections 39032.5, 44002, 44003, 44005, 44010, 44011, 44011.3, 44012, 44013, 44014, 44014.5, 44014.7, 44015, 44017, 44017.1, 44032, 44033, 44036, 44037.1, 44062.1 and 44081, Health and Safety Code and Sections 9884.8 and 9884.9 of the Business and Professions Code.